LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (Currently Amended) A method of enhancing memory, attentive cognition or learning in a human subject, comprising the step of administering Fibroblast Growth Factor 18 (FGF-18) to said human subject in an amount effective to enhance memory, attentive cognition or learning in said human subject, **wherein the human subject does not have an impairment in memory, attentive cognition or learning**.

2. (Cancelled)

3. (Currently Amended) A method of treating impaired cognitive performance in a human subject, **wherein the impaired cognitive performance is associated with impaired function of the hippocampus**, comprising the step of administering to said human subject a therapeutically effective amount of Fibroblast Growth Factor-18 (FGF-18), thereby treating impaired cognitive performance in said human subject.

4. (Cancelled)

5. (Withdrawn) The method of claim 3, wherein the condition is a learning deficit.

6. (Withdrawn) The method of claim 3, wherein the condition is attention deficit.

7. (Withdrawn) The method of claim 3, wherein the condition is epilepsy.

8. (Withdrawn) The method of claim 3, wherein the condition is schizophrenia.

9. (Withdrawn) The method of claim 3, wherein the condition is Alzheimer's disease.

10. (Withdrawn) The method of claim 3, wherein the condition is an amnesiac syndrome.

11. (Withdrawn) A method for determining the susceptibility of a subject to a condition selected from the group consisting of: impaired cognitive performance, learning deficit, cognition deficit, attention deficit, epilepsy, schizophrenia, Alzheimer's disease and an amnesiac syndrome, wherein the method comprises the steps of:

(a) removing from the central nervous system of the subject a sample comprising Fibroblast Growth Factor-18 mRNA, and

(b) quantitating the Fibroblast Growth Factor-18 mRNA in said sample;

wherein the level of said Fibroblast Growth Factor-18 mRNA is indicative of said subject's susceptibility to said condition.

12. (Withdrawn) The method of claim 11, wherein the sample is obtained from the hippocampus.

13. (Withdrawn) A method for determining the pharmacological effect of a compound on the level of FGF-18 gene expression, comprising the steps of:

(a) growing one or more cultures of neural cells;

(b) measuring the level of FGF-18 gene expression in the cultured neural cells;

(c) contacting the compound with at least one of the cultures of neural cells; and

(d) measuring the level of FGF-18 gene expression in the cultured neural cells that have been contacted with the compound;

wherein a difference in the level of FGF-18 gene expression that correlates with exposure of the neural cells to the compound is indicative of a pharmacological effect of said compound.

14. (Withdrawn) A method for identifying memory-related proteins, comprising the steps of

(a) providing naïve, swimming control, and water-maze trained animals;

(b) extracting mRNA from the hippocampus of the naïve, control and trained animals;

(c) determining differential gene expression levels by quantitating and comparing mRNA levels in naïve, control and trained animals so as to identify "memory related genes"; and

(d) quantitating protein levels reflecting memory related genes for both control and target groups.

15. (Withdrawn) The method of claim 14, further comprising the step of validating the differentially expressed genes quantified in step (d) by quantitative RT-PCR.

16. (Withdrawn) The method of claim 15, wherein the quantitation of mRNA is carried out by a method selected from the group consisting of: Northern blotting, nuclease protection assays, array hybridization, RT-PCR, and hybridization with labeled oligonucleotide probes.

17. (Withdrawn) The method of claim 16, wherein the quantitation of mRNA is carried out by array hybridization.

18. (Cancelled)

19. (Cancelled)

20. (Previously presented) The method of claim 1, wherein the FGF-18 is administered in an amount effective to increase a brain FGF-18 level in said human subject.

21. (Previously presented) The method of claim 1, wherein the FGF-18 is administered in an amount effective to increase a hippocampal FGF-18 level in said human subject.